

## ABSTRACT OF THE DISCLOSURE

A system and method for assessing a health and functionality of a locomotive friction modifying system wherein the locomotive has a friction modifying applicator associated with a wheel of the locomotive for applying a friction modifying agent to a rail on which the wheel is traversing. The system and method comprise a sensor detecting a predetermined operational condition of the locomotive. The system and method also comprise a controller associated with the sensor and responsive to input from the sensor determining a per unit creep of an axle of the locomotive. The controller also determines a tractive effort of the axle of the locomotive and determines a friction modifying applicator state for the applicator associated with the axle. The controller further compares the determined per unit creep of the axle, the tractive effort of the axle and the state of the friction modifying applicator associated with the axle to a predetermined value indicative of the health and functionality of the locomotive friction modifying system. The controller provides an indication of the health and functionality of the locomotive friction modifying system.